REMARKS

Claims 1-68 were pending in the current application. Applicants have amended claims 1, 5, 30, 32, 40, and 44. Reexamination and reconsideration of all pending claims are respectfully requested.

35 U.S.C. §103

Independent claims 1, 5, 6, 28-32, 39, 40, 44, 45, 56, 57, 59, 61, 63, 64, and 66-68 are pending in the application. The Office Action rejected claims 1 and 2, including independent claim 1, under 35 U.S.C. §103 based on Numminen et al., U.S. Patent 6,687,499 ("Numminen") in view of Walding, U.S. Patent 6,031,845 ("Walding"). The Office Action rejected independent claim 30 under 35 U.S.C. §103 based on Numminen in view of Tiedemann Jr. et al., U.S. Patent 5,802,105 ("Tiedemann"). The Office Action rejected claims 32-33 and 35-38, including independent claim 32, under 35 U.S.C. §103 based on Numminen in view of Walding. The Office Action rejected dependent claim 34 under 35 U.S.C. §103 based on Numminen in view of Walding and in further view of Gopalakrishnan et al., U.S. Patent 7,110,466 ("Gopalakrishnan"). The Office Action rejected claims 59 and 60, including independent claim 59, under 35 U.S.C. §103 based on Numminen in view of Tiedemann. The Office Action rejected claims 6-8 and 10, including independent claim 6, under 35 U.S.C. §103 also based on Numminen in view of Tiedemann. The Office Action rejected independent claim 5 under 35 U.S.C. §103 based on Numminen in view of Walding and in further view of Funk, U.S. Patent 6,766,164 ("Funk"). The Office Action rejected dependent claim 9 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Funk. The Office Action rejected dependent claim 24 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Buchholz, U.S. Patent 5,555,266 ("Buchholz"). The Office Action rejected independent claim 28 under 35 U.S.C. §103 based on Numminen in view of Tiedemann. The Office Action rejected claims 29, 39, 61-63, 65, 67, and 68, including independent claims 29, 39, 651, 63, 67 and 68, under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi, U.S. Patent 6,333,932 ("Kobayashi"). The Office Action rejected independent claim 31 under 35 U.S.C. §103 based on Numminen in

- 17 -

view of Kobayashi and in further view of Tiedemann. The Office Action rejected independent claims 45 and 56 under 35 U.S.C. §103 based on Numminen in view of Tiedemann. The Office Action rejected dependent claims 49-53 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi. The Office Action rejected dependent claims 46-48 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Ikeda, U.S. Patent 5,636,212 ("Ikeda"). The Office Action rejected claims 57 and 58, including independent claim 57, under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi and in still further view of Ikeda. The Office Action rejected dependent claims 11-13, 15-20, 22, 23, and 25-27 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi. The Office Action rejected claims 40-44, including independent claims 40 and 44, under 35 U.S.C. §103 based on Numminen in view of Oommen, U.S. Patent 6,799,203 ("Oommen"). The Office Action rejected independent claims 64 and 66 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi and in still further view of Ikeda. The Office Action rejected dependent claims 14 and 21 under 35 U.S.C. §103 based on Numminen in view of Tiedemann and further in view of Kobayashi.

Independent Claims 1 and 32 – Numminen in view of Walding

Independent Claim 1

Applicants have amended claim 1 to recite that the test settings selected "comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing…" Applicants contend that receiving a message comprising such test settings is not shown by the combination of Numminen and Walding.

Numminen is summarized in the Abstract, which states that the design tests the functioning of a downlink by receiving a "test signal" in the downlink direction and comparing the received test signal to a known form of the test signal. Numminen, Abstract. The mobile station sends uplink a signal representing the information stored. Numminen,

- 18 -

Abstract. Numminen fails to perform material requirements in claim 1, for example, including but not limited to receiving a first message having the required test settings, and configuring channels based on selected test settings in the first message.

In essence, Numminen provides a test signal on a forward link to a mobile device and compares the signal received at the mobile device to a known test signal, and stores the results of the comparison. The most that can be said of Numminen with respect to claim 1, as amended, is that it performs functionality having some resemblance to "receiving test packets via a forward traffic channel" and "transmitting loop back packets via the reverse traffic channel if indicated..." Numminen does not receive a first message having test settings included therein wherein the test settings comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing ("receiving limitation") nor configure one or more channels based on the selected test settings ("configuring limitation").

With respect to the receiving limitation, the Office Action cites col. 7, ll. 18-20 and col. 11, ll. 4-6, which state in their entirety:

> So test mode means that the mobile station to be tested is instructed
> to maintain a connection on a certain transmission channel. ... The names
> and specifications in this patent application associated with particular
> systems or hardware are given by way of example only and do not affect the
> applicability of the invention to all mobile communication systems in which
> a mobile station can operate on data, traffic and control channels.

These passages say nothing about "a first message having included therein test settings selected from a plurality of possible test settings ... wherein the test settings selected comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing" as required by claim 1, as amended. The cited passages simply say that the mobile station maintains a connection on a certain

- 19 -

transmission channel. The testing procedure outlined in Numminen is not as intricate as the functionality claimed in claim 1, as amended, but instead merely operates by connecting the mobile station to testing equipment, and comparing a signal received to a known signal over a connection maintained on a certain channel. The Numminen device operates not by receiving test settings and configuring channels according to test settings specifically claimed, but by connecting the mobile device to test equipment and performing signal transmission and comparison functions. *See, e.g.,* Numminen, col. 6, ll. 45-48 ("as testing...is begun, an arrangement according to FIG. 2 is first set up in which the mobile station to be tested is connected in a known manner to the test equipment...")

The Office Action states at p. 48 that "from a plurality of possible test settings, related to data, traffic, and control channels, it [the mobile device] is instructed to choose one of the plurality of test settings." This is reading more into Numminen than is actually there. This appears to be implying that data, traffic, and control channels each have inherent "test settings" and by simply running a test, in the basic manner disclosed in Numminen, test settings for the channel are employed. This is an incorrect interpretation of "test settings," particularly in the context of the language of the amended claim. The claim requires a first message having included therein selected test settings, wherein the test settings selected comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing. No message is provided by the Numminen design that includes selected test settings as the term "test settings" is used in the claim.

The cited passages simply do not go as far as the Office Action alleges— the cited passages merely say that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel. The Office Action is simply inventing functionality where none is actually disclosed or suggested.

Regarding the configuring limitation, since no test settings are received, the Numminen mobile device does not configure one or more channels based on selected test settings. The Office Action cites col. 7, ll. 46-47, col. 7, ll. 59-61, and col. 9, ll. 10-11 of

- 20 -

Numminen (p. 3, Office Action), as well as the aforementioned col. 7, ll. 18-20 and col. 11, ll. 4-6 (p. 48, Office Action). The passages cited at p. 3 of the Office Action state:

> At first the test equipment sends a comparison and statistical operation start command associated with the data channel, which command can be called CLOSE_Multi-slot_loop_CMD.... The mobile station closes, i.e. activates, the test loop in a certain time after it has sent the acknowledge.... The mobile station acknowledges the message using a CLOSE_Multi-slot_loop_ACK whereby the test equipment stops said timer.

These passages only say that a start command is issued, the mobile station closes the test loop, and the mobile station acknowledges the message. These passages thus discuss sending a start command, activating the test loop, acknowledging a message, and stopping a timer. These say nothing about configuring a channel or channels based on selected test settings – test settings are not employed in the foregoing passages, and certainly not test settings comprising procedures for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and loop back packet transmission procedures to be performed during testing.

As noted, the Office Action also again cites col. 7, ll. 18-20 and col. 11, ll. 4-6 in rejecting the configuring limitation, but these have nothing to do with configuring a channel or channels based on received test settings as test settings received are defined. The cited passages simply say that the mobile station maintains a connection on a certain transmission channel, and that various channels may be employed. This does not show "configuring the at least one or more channels based on the selected test settings..." as required by claim 1, as amended.

The Office Action states on p. 49 that "it [the Numminen mobile device] is instructed to choose/configure one of the plurality of test settings." Again, this is reading more into Numminen than is actually there. The cited passages again simply do not go as far as the Office Action alleges– the cited passages merely say that the mobile station to be

Attorney Docket No. 010121
Customer No. 23696

tested is instructed to maintain a connection on a certain transmission channel. The Office Action is simply inventing functionality where none is actually disclosed or suggested.

The remaining limitations of claim 1 include the phrase "test settings," and as discussed above, no test settings as claimed are disclosed or suggested in Numminen. For example, Numminen alone, or in combination with Walding, do not disclose "transmitting loop back packets if indicated by the selected test settings" or "transmitting signaling data ... if indicated by the selected test settings..."

Applicants separately take issue with the statement in the Office Action at p. 50 that "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references..." Applicants have continually argued that neither Numminen nor Walding, alone or in combination, include the limitations claimed. Applicants discuss these limitations with respect to the individual references because the Office Action cites passages from Numminen (or Walden) specifically against the individual limitations, but in reality, neither reference, alone or in combination, disclose the claimed limitations. For example, while the receiving and configuring limitations discussed above are argued by Applicants specifically with respect to Numminen, this is only because Numminen is the only reference cited in the Office Action against these limitations – the Office Action does not contend that Walding shows the receiving or configuring limitations. Because these limitations are not alleged in the Office Action to be shown in Walding, and are not shown in the Walding reference, Applicants do not specifically discuss these receiving or configuring limitations with respect to Walding as it would be a waste of time. In any event, every limitation cited is missing from the combination of Numminen and Walding, and thus the argument that individual references cannot be attacked is specious.

Thus claim 1, as amended, is not obvious based on Numminen in view of Walding. Claim 2 is allowable as it includes limitations not shown by the combination of Numminen and Walding.

Independent Claim 32

As with claim 1, claim 32 has been amended and is not obvious in view of Numminen in view of Walding. Claim 32 also includes a "receiving limitation" and a "configuring limitation," not shown by the references, alone or in combination. The receiving limitation of claim 32 speaks of possible test settings for one or more auxiliary channels, while the configuring limitation speaks of configuring each auxiliary channel based on test settings applicable to the auxiliary channel. The test settings selected in claim 32, as amended, "comprise indications for configuring each auxiliary channel and indications of procedures to be performed by each auxiliary channel during testing"

The Office Action again cited Numminen, col. 7, ll. 18-20 as well as col. 11, ll. 4-6 in rejecting the receiving limitation. Office Action, p. 7. As noted, these passages say nothing about "a first message having included therein test settings selected from a plurality of possible test settings, wherein the test settings selected comprise indications for configuring each auxiliary channel and indications of procedures to be performed by each auxiliary channel during testing ..." as required by claim 32, as amended. The cited passages simply say that the mobile station maintains a connection on a certain transmission channel, and the Numminen device operates not by receiving test settings and configuring channels according to test settings. The testing procedure outlined in Numminen is not as intricate as the functionality claimed in claim 32, merely operating by connecting the mobile station to testing equipment, and comparing a signal received to a known signal over a connection maintained on a certain channel.

The Office Action further cites Numminen, col. 6, ll. 54-56 and col. 6, l. 66 – col. 7, l. 8 in rejecting the receiving limitation with respect to auxiliary channels. These passages state that test equipment sends an immediate assignment 503 which may include various instructions for the mobile station. The argument is made on pp. 55-56 of the Office Action that the immediate assignment indicates the contents of the test octet" and that a value "can be reserved to indicate that in response to the immediate assignment 503 the mobile station has to set itself into a special test mode..." wherein the special test mode includes not informing the MM layer about the link. Numminen, col. 7, ll. 1-12. This does not conform

- 23 -

to the claim limitations, as amended, which require that the selected test settings "comprise indications for configuring each auxiliary channel and indications of procedures to be performed by each auxiliary channel during testing."

The cited passages simply do not go as far as the Office Action alleges– the cited passages merely say that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel, and an indication that a certain layer not be informed about the link is transmitted. The test settings contents required in amended claim 32 are not shown in the cited references, alone or in combination.

Regarding the claim 32 configuring limitation, since no test settings as claimed are received, the Numminen mobile device does not configure one or more channels based on selected test settings as test settings are defined in claim 32. The cited passages only say that a start command is issued, the mobile station closes the test loop, and the mobile station acknowledges the message. These passages thus discuss sending a start command, activating the test loop, acknowledging a message, and stopping a timer. These say nothing about configuring a channel or channels based on selected test settings as claimed. Test settings such as those claimed are not employed in the cited passages.

The remaining limitations of claim 32 include the phrase "test settings," and as discussed above, no test settings as claimed are provided in Numminen. For example, Numminen alone, or in combination with Walding, do not disclose "transmitting each configured auxiliary channel in accordance with the applicable test settings..."

Thus claim 32, as amended, is not obvious based on Numminen in view of Walding. Claims depending from allowable claim 32 are allowable as they include limitations not shown by the combination of Numminen and Walding.

Independent Claims 6, 28, 30, 45, 56, and 59 – Numminen in view of Tiedemann

Independent Claim 6

Applicants focus on the following limitation of claim 6:

- 24 -

identifying parameter values descriptive of the test packets in the first

data transmission and excluding known test data, wherein the parameter

values for each test packet comprise at least one of a serving sector from

which the test packet was received, a sequence number of the test packet,

and a length of the test packet;

This is understood in the context of the previous limitation, which requires "receiving a first data transmission comprising test packets of known test data via a first channel." This requires (1) a first data transmission comprising (2) test packets of (3) known test data. With these three distinct items in mind, the "identifying" limitation requires identifying (4) parameter values descriptive of the test packets [2] in the first data transmission [1] and excluding known test data [3]. Parameter values [4] comprise at least one of three items listed, including (5) length of the test packet.

Looking at Tiedemann, Tiedemann states that each packet of test data provided by test circuit 33 "comprises a pseudorandom bit sequence of predetermined length." Tiedemann, Col. 6, ll, 13-16. After encoding the pseudorandom test data and subsequent transmission over a communication channel, the received test data is compared to a replica thereof synchronously generated within the receive station, and integrity of data transmission may be evaluated on the basis of the comparison between the received test data and the generated replica. Tiedemann, col. 6, ll. 16-23.

While Tiedemann encodes and transmits a pseudorandom bit sequence of predetermined length, the predetermined length is not "identified" as a parameter value descriptive of the test packet. For example, a 256 bit pseudorandom code is known to be 256 bits, but length of the test packet is not identified in the transmission nor said to be needed for the comparison – the length is simply the length of the pseudorandom bit sequenceknown during the encoding and the comparison. Thus the Tiedemann design does not identify parameter values descriptive of the test packets in a data transmission, where parameter values comprise at least one of a serving sector, a sequence number, and a length as claimed. No such identifying as claimed occurs in Tiedemann – the pseudorandom bit

sequence is generated, transmitted, and compared to the replica without need for identifying parameters, such as length, descriptive of the test packets.

The Office Action relies on these "pseudorandom bit sequencetest data" statements in Tiedemann, stating "wherein the length of the pseudorandom bit sequence is not part of the known test data, i.e. is not a field element in the packet." Office Action, p. 51. While length is admittedly not part of the Tiedemann "pseudorandom bit sequencetest data," this misses the point: the claim is not seeking to protect transmission of test data packets that include length (or some other metric that is not part of the known test data) as part of the transmission. Tthe claim is seeking to protect "identifying parameter values descriptive of the test packets in the first data transmission and excluding known test data," or the process of identifying parameter values descriptive of the test packets, such as length. The Tiedemann design does not do this, does not identify parameter values descriptive of the test packets as claimed, even though the Tiedemann test packet/pseudorandom bit sequence (and every other test packet, for that matter) has a length associated therewith. The key distinction is that the length is not separately or specifically identified in Tiedemann.

As previously noted, Numminen also does not show this limitation. Col. 1, ll. 35-39 of Numminen had been identified, but this section describes a conventional loop back test mode where a mobile station sends back known bits, such as the bits received on the downlink, and parameter values descriptive of test packets in the first data transmission and excluding known test data are not shown by this passage, or by the combination of Numminen and Tiedemann.

Claim 6 is therefore not obvious based on Numminen in view of Tiedmenn, and claims depending from claim 6 are allowable as they include limitations not shown in the cited references, alone or in combination.

Independent Claim 28

The Office Action rejects claim 28 for largely the same reasons as claim 6. Applicants again note the "parameter identifying" limitation of claim 28:

- 26 -

identify parameter values descriptive of the test packets in the first data transmission and excluding known test data, wherein the parameter values for each test packet comprise at least one of a serving sector from which the test packet was received, a sequence number of the test packet, and a length of the test packet;

As with claim 6, the Office Action rejects the "parameter identifying" limitation of claim 28 based on Tiedemann and the "pseudorandom bit sequence ... of predetermined length (column 6 lines 13-15 [of Tiedemann] and wherein length of the pseudorandom bit sequence is not part of the known test data)." Office Action, p. 23.[1]

As noted, while Tiedemann encodes and transmits a pseudorandom bit sequence of predetermined length, the predetermined length is not "identified" as a parameter value descriptive of the test packet. The Tiedemann design does not identify parameter values descriptive of the test packets in a data transmission, where parameter values comprise at least one of a serving sector, a sequence number, and a length as claimed. No such identifying as claimed occurs in Tiedemann – the pseudorandom sequence is generated, transmitted, and compared to the replica without need for identifying parameters (such as length) descriptive of the test packets.

The claim is seeking to protect "identifying parameter values descriptive of the test packets in the first data transmission and excluding known test data," or the process of identifying parameter values descriptive of the test packets, such as length. The Tiedemann design does not do this, does not identify parameter values as claimed, even though the Tiedemann test packet (and every other test packet, for that matter) has a length associated therewith. The key distinction is that the length is not separately or specifically identified in Tiedemann.

---

[1] Applicants note that in the "Response to Arguments" section beginning at p. 47 of the Office Action, Claim 28 is only cited at p. 62, wherein discussion of the Kobayashi argument is purportedly refuted. Applicants believe this incorrect discussion of Kobayshi was an oversight and, if anything, the supplemental argument at pp. 50-51 of the Office Action discussing claim 6 appliesy, and this passage which is discussed above with respect to claim 6.

Attorney Docket No. 010121
Customer No. 23696

Numminen also does not show this limitation. Col. 1, ll. 35-39 of Numminen had been identified, but this section describes a conventional loop back test mode where a mobile station sends back known bits, such as the bits received on the downlink, and parameter values descriptive of test packets in the first data transmission and excluding known test data are not shown by this passage, or by the combination of Numminen and Tiedemann.

Claim 28 is therefore not obvious based on Numminen in view of Tiedmenn.

Independent Claim 30

Applicants have amended claim 30 to recite:

> receiving a second data transmission via a second channel, wherein the second data transmission includes parameter values descriptive of the test packets in the first data transmission, excludes known test data, and further comprises a record for each test packet correctly received, wherein the parameter values are configured to be used to update a plurality of variables employable in testing the one or more channels;

The Office Action cited Numminen in rejecting this limitation before amendment. The passages of Numminen cited are col. 10, ll. 27-34, and col. 10, ll. 42-45 (Office Action, p. 6). These passages state:

> In step 603 the mobile station compares the received signal to a corresponding locally generated signal and stores statistical information about detected errors in the same manner as described above in connection with the test arrangement proper. At certain intervals the mobile station sends according to step 604 extracts from the stored statistical data to the base station, which sends them further according to step 605 to a quality control station in the cellular radio system.
>
> . . .

- 28 -

Likewise it can be specified that mobile stations send the statistical data uplink as part of the messages that they would send in any case e.g. to update their location.

These passages say that the comparison is made, statistical information about detected errors is stored and at certain intervals statistical errors can be transmitted. This does not speak of "a record for each test packet correctly received," but instead discusses "statistical information about detected errors." This differs from the present claim, and the requirement of "a record for each test packet correctly received" is not shown by the combination of Numminen and Tiedemann.

Further, with respect to the contents of the parameter values, claim 30 as amended requires "wherein the parameter values are configured to be used to update a plurality of variables employable in testing the one or more channels." The cited features of Numminen, namely the comparison between a "received signal [and] a corresponding locally generated signal" wherein "statistical information about detected errors" is stored, does not disclose nor suggest parameter values configured to be used to update a plurality of variables employable in testing one or more channels as required by claim 30, as amended. This aspect is missing from the combination of Numminen and Tiedemann.

For these reasons, claim 30 is not obvious based on Numminen in view of Tiedemann.

Independent Claim 45

With respect to claim 45, Applicants focus on the following limitation:

forming a plurality of test packets for transmission on the traffic channel, the plurality of test packets comprising information for a plurality of rates being tested for the traffic channel;

This "forming" limitation, and particularly the "plurality of test packets comprising information for a plurality of rates being tested for the traffic channel" is purportedly shown

-29-

by Tiedemann, including the disclosure of Table II and certain associated text therein (Col. 9, ll. 30-33). Table II lists various rates and test bits per frame. This is not "the plurality of test packets comprising information for a plurality of rates being tested for the reverse traffic channel." While the Tiedemann listing of rates represents "test bits per frame," it is not information contained in a plurality of test packets. The "test bits per frame" in Tiedemann specifically is not included in the Tiedemann test packets; rather, it is the bits per frame at which the Tiedemann data packets are transmitted. The claim requires a container (test packets) comprising information for multiple metrics (rates being tested), while Tiedemann shows multiple metrics. These are two different concepts, and again, the Tiedemann test packets do not include this information.

Thus claim 45 is not obvious in view of the combination of Numminen and Tiedemann. Claims depending from claim 45 are not obvious as they include limtitations not found in the cited references, alone or in combination.

Independent Claim 56

Claim 56 includes a limitation similar to the "forming" limitation of claim 45:

form a plurality of test packets for transmission on the traffic channel, the plurality of test packets comprising information for a plurality of rates being tested for the traffic channel;

As noted with respect to claim 45, "test packets comprising information for a plurality of rates being tested for the traffic channel" are not shown by Tiedemann, nor by the combination of Numminen and Tiedemann. For the reasons presented above, claim 56 is not obvious in view of the combination of Numminen and Tiedemann.

Independent Claim 59

Claim 59, and specifically the limitation of:

Attorney Docket No. 010121
Customer No. 23696

receiving a plurality of test packets at a plurality of rates on the
reverse traffic channel, the plurality of test packets comprising information
for a plurality of rates being tested for the reverse traffic channel;

was rejected based on Numminen in view of Tiedemann, where the Office Action
acknowledges Numminen shows neither receiving a plurality of test packets at a plurality of
rates nor the plurality of test packets comprising information for a plurality of rates being
tested, or updating a plurality of variables maintained for a plurality of rates based on the
rates of the received test packets. Office Action, p. 13.

These limitations are found by the Office Action in Tiedemann, and the Office
Action relies on the Abstract and col. 9, ll. 30-33 and Table II of Tiedemann. The Abstract
of Tiedemann says that each data packet is assigned one of a multiplicity of data rates in
accordance with a first pseudorandom process, and is transmitted at the data rate assigned
thereto. This is not "the plurality of test packets comprising information for a plurality of
rates being tested for the reverse traffic channel." This passage of the abstract states that
packets are transmitted at a certain rate, while the claim requires that the test packets
"compris[e] information" for a plurality of rates being tested. These are different – to
analogize, the claim is similar to a claim for a car carrying a list of metrics, such as speed at
which the car can operate, versus the reference showing that the car operates at certain
metrics, such as at certain speeds or a specific speed. It is the metric itself versus a carrier
containing information about the metric. These are two different things.

The passage at Col. 9, ll. 30-33 and Table II do not contradict the foregoing. Table
II lists various rates and test bits per frame. This is not "the plurality of test packets
comprising information for a plurality of rates being tested for the reverse traffic channel."
While this is a list of test bits per frame, it is not information contained in a plurality of test
packets, and the information provided is not included in the Tiedemann test packets; rather,
it is the bits per frame that the Tiedemann data packets are transmitted.

- 31 -

The Office Action cited Numminen in rejecting this limitation before amendment. The passages of Numminen cited are col. 8, ll. 4-7, and col. 1, ll. 41-43 (Office Action, pp. 12-13). These passages state:

> Tests usually employ a technique in which a mobile station receives a downlink frame from the SS and sends back to the SS a corresponding uplink frame which contains the equivalent number of bits.

> [This is standard loop-back procedure, previously discussed]

> . . .

> Once the G loop has been activated the test equipment can start sending test data, i.e. periods of a pseudorandom bit sequence packed in downlink frames.

These passages say that the standard loop-back procedure is performed, and comparison is made, statistical information about detected errors is stored and at certain intervals statistical errors can be transmitted. This does not speak of "a record for each test packet correctly received," but instead discusses "statistical information about detected errors." This differs from the present claim, and the requirement of "a record for each test packet correctly received" is not shown by the combination of Numminen and Tiedemann.

Further, with respect to the contents of the parameter values, claim 30 as amended requires "wherein the parameter values are configured to be used to update a plurality of variables employable in testing the one or more channels." The cited features of Numminen, namely the comparison between a "received signal [and] a corresponding locally generated signal" wherein "statistical information about detected errors" is stored, does not disclose nor suggest parameter values configured to be used to update a plurality of variables employable in testing one or more channels as required by claim 30, as amended. This aspect is missing from the combination of Numminen and Tiedemann.

- 32 -

For these reasons, claim 30 is not obvious based on Numminen in view of Tiedemann.

Numminen also does not show this limitation. Claim 59 is therefore not obvious based on Numminen in view of Tiedmenn.

Independent Claim 5 – Numminen in view of Walding in view of Funk

Applicants focus on the "receive" limitation of claim 5, which, as amended, states:

> receive a first message having included therein test settings selected from among a plurality of possible test settings for one or more channels comprising a reverse traffic channel, one or more auxiliary channels, or a combination thereof, wherein the test settings selected comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing;

The Office Action had cited Numminen, col. 7, ll. 18-20 as well as col. 11, ll. 4-6 in rejecting this limitation. While Applicants dispute that Numminen includes test settings as previously claimed, Applicants have amended this limitation to require that the test settings selected comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing. The cited passages simply say that the mobile station maintains a connection on a certain transmission channel, and the Numminen device operates not by receiving test settings and configuring channels according to test settings. The testing procedure outlined in Numminen is not as intricate as the functionality claimed in claim 5, merely operating by connecting the mobile station to testing equipment, and comparing a signal received to a known signal over a connection maintained on a certain channel.

The Office Action further cites various passages from Col. 7 of Numminen, but these passages do not demonstrate the test settings recited in the claim limitations, as

- 33 -

amended, which require that the selected test settings "comprise indications for configuring the reverse traffic channel, one or more auxiliary channels, or a combination thereof and indications of loop back packet transmission procedures to be performed during testing."

The cited passages simply do not go as far as the Office Action alleges– the cited passages merely say that the mobile station to be tested is instructed to maintain a connection on a certain transmission channel, and an indication that a certain layer not be informed about the link is transmitted. The test settings contents required in amended claim 5 are not shown in the cited Numminen, Walding, and/or Funk references, alone or in combination.

Further, regarding the claim 5 "configure" limitation, since no test settings as claimed are received, the Numminen mobile device does not configure the one or more channels based on the test settings in the first message as test settings are defined in claim 5. Cited passages only say that a start command is issued, the mobile station closes the test loop, and the mobile station acknowledges the message. These passages thus discuss sending a start command, activating the test loop, acknowledging a message, and stopping a timer. These say nothing about configuring a channel or channels based on selected test settings as claimed. Test settings such as those claimed are not employed in the cited passages.

The remaining limitations of claim 5 include the phrase "test settings," and as discussed above, no test settings as claimed are provided in Numminen, Walding, and/or Funk. For example, Numminen alone, or in combination with Walding and/or Funk, do not "transmit a plurality of loop back packets via the reverse traffic channel if indicated by the selected test settings ..."

Thus claim 5, as amended, is not obvious based on Numminen in view of Walding and in further view of Funk. Claims depending from allowable claim 5 are allowable as they include limitations not shown by the combination of Numminen, Walding, and/or Funk.

- 34 -

Attorney Docket No. 010121
Customer No. 23696

PATENT

Independent Claims 29, 39, 61, 63, 67 and 68 – Numminen in view of Tiedemann in view of Kobayashi

Applicants focus on claim 29 and the following limitation of claim 29:

> forming a plurality of loop back packets for the plurality of received
> test packets, wherein each loop back packet covers zero or more test packets,
> excludes known test data, and includes the transmission source and the
> sequence number of each covered test packet; and

This limitation is said in the Office Action to be shown by Kobayashi. (*See, e.g.*, Office Action, p. 25). The Kobayashi reference is said to be a "Connectionless Communication System, its Test Method, and Intra-Station Control System." Kobayashi discusses both wired network operation, including certain aspects such as error logging while in operation, as well as the "test method" referenced in the title. Applicants submit that the drawing cited in the Office Action, FIG. 783, purportedly showing a "sequence number" ("SN") and "Message Identifier" ("MID") field, is dealing with operation of the Kobayashi system, not test. The text cited in the Office Action, contained in Col. 2, ll. 46 through Col. 3, l. 22, does not reference FIG. 783, the MID or SN field, or anything having to do with FIG. 783. While the Kobayashi patent is over 1000 pages in length, nothing appears to indicate that the "L3 Protocol Data Unit" of FIG. 783 is employed or employable in any manner during the testing described.

Applicants do note that, for example, the L3-PDU is a Layer 3 protocol data unit, while L2-PDU is a Layer 2 Protocol Unit, and the L3 Protocol Data Unit, according to FIG. 783, only includes DA (Destination Address), SA (Source Address), and Address. A detailed description of loopback testing is discussed at col. 271, l. 31 through col. 274, l. 27 of Kobayashi, which fails to mention L2-PDU, SN, MID, or FIG. 783 whatsoever.

The passage cited in the Office Action, Col. 2, ll. 55-67 of Kobayashi, merely talks about a destination address (DA) and a source address (SA) as the only pertinent

- 35 -

Attorney Docket No. 010121
Customer No. 23696

information required in testing the wired network. No mention is made of MID, SN, the L2-PDU, or anything related in describing the Kobayashi testing function.

Applicants therefore submit that Kobayashi, while showing that at Level 2, MID and SN are employed, apparently use the cited L2-PDU aspects while in operation, not during testing. The testing performed simply relies on SA and DA when test packets are transmitted for testing purposes in Kobayashi. Thus the statement in the Office Action that "Kobayashi further teaches the L2-PDU shown in FIG. 783 is a BOM cell" is incorrect. BOM is "Beginning of Message," and the "L2 Protocol Data Unit" shown in FIG. 783 is the format employed in the L2-PDU. FIG. 783, as stated in Kobayashi, "shows the format of the L2-PDU and L3-PDU".

The Office Action further contends "The 2 bytes preceded by the header field stores a segment type ST, sequence number SN, and message identifier MID..." Office Action, p. 25. While this may be true during operation, these fields are not employed during testing, and thus Kobayashi cannot be said to "[form] a plurality of loop back packets for the plurality of received test packets, wherein each loop back packet covers zero or more test packets, excludes known test data, and includes the transmission source and the sequence number of each covered test packet". Kobayashi does not show that the loop back packet includes the transmission source and the sequence number of each covered packet. Neither of the other references cited (Numminen or Tiedemann) show this included in a loop back packet as claimed. Thus claim 29 is not obvious in view of Numminen, Tiedemann, and Kobayashi.

The other claims cited, claims 39, 651, 63, 67 and 68, include similar limitations (e.g. claim 63: "includes the transmission source and the sequence number of each covered test packet"), a limitation not shown by the combination of Nummanen, Tiedemann, and Kobayashi. Thus these claims are not obvious in view of Numminen, Tiedemann, and Kobayashi

Attorney Docket No. 010121
Customer No. 23696

Independent Claim 31 – Numminen in view of Kobayashi in view of Tiedemann

As with the foregoing claims discussed with respect to Kobayashi, claim 31 includes a similar "a transmission source and a sequence number" limitation ("receiving a plurality of loop back packets via a reverse traffic channel, wherein each loop back packet covers zero or more test packets, excludes known test data, and includes a transmission source and a sequence number of each covered test packet"), a limitation not shown by Kobayashi or the combination of Nummanen, Kobayashi, and Tiedemann. Thus these claims are not obvious in view of Numminen, Kobayashi, and Tiedemann.

Independent Claims 40 and 44 – Numminen in view of Oommen

Claims 40 and 44 have been amended to recite "wherein collecting the first statistic occurs while performing testing." Collecting the first statistic occurs, in both claims 40 and 44, while in the idle state. The Office Action cites Numminen, col. 10, ll. 1-8 which generally describes the idle mode, wherein "it receives from base stations certain downlink messages and sends occasionally location update messages uplink." Id. This describes idle mode operation wherein testing is not being performed, nor collecting statistics. Collecting of statistics does not occur in idle mode within Numminen, and is not shown by the cited passage. The Oommen reference is not cited in opposition to this limitation, and thus the combination of Numminen and Oommen does not render claims 40 or 44 obvious, as the claims, as amended, include limitations not shown by the cited combination. Claims depending from allowable independent claim 40, such as claims 41-43, are allowable as they include limitations not shown in the cited references, alone or in combination.

Independent Claims 57, 64, and 66 - Numminen in view of Tiedemann in view of Kobayashi in view of Ikeda

Independent Claim 57

Claim 57 includes two limitations, similar to those discussed above, that materially differ from the cited references:

- 37 -

receiving a first message having included therein a minimum rate and a maximum rate for data transmission on the reverse traffic channel; [the "receiving" limitation]

forming a plurality of test packets for transmission on the reverse traffic channel, wherein each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates; [the "forming" limitation]

The "forming" limitation, and the "each packet includes a sequence number" is said to be shown by Kobayashi, which as noted above does not show anything transmitted during testing other than SA (source address) and DA (destination address). The other L2-PDU parameters shown in FIG. 783 of Kobayashi have to do with Level 2 operation, not testing,. The Office Action attempts to cite FIGs. 582 through 628, but all of the formats shown in these references appear to relate to operation, not testing. None of the cited Figures appear to relate to testing as testing is discussed in Kobayashi. Thus the Kobayashi reference does not show "each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates" as claimed.

With respect to the "receiving" limitation, this requires a first message being received that includes a minimum and maximum rate for data transmission on the reverse traffic channel. It is not clear where this limitation is purportedly shown. However, Applicants note that, as discussed above, neither Numminen, Tiedemann, nor the Ikeda reference show receipt of a first message that includes a minimum and maximum rate for data transmission on the reverse traffic channel. Numminen, while discussing testing, does not show transmission of such a message. Tiedemann, while presenting various rates in Table II and the associated text, does not provide rates, particularly maximum and minimum transmission rates for data transmission on the reverse channel, in a test message. Ikeda, while discussing maximum and minimums, only discusses these with relation to bandwidth, not rate, and neither discloses nor suggests "receiving a first message having included therein a minimum rate and a maximum rate for data transmission on the reverse traffic

channel." Thus the receiving limitation of claim 57 is not shown by any of the four cited references, alone or in combination.

Applicants therefore submit that with respect to claim 57, the claim is not obvious in view of Numminen, Tiedemann, Kobayashi, and/or Ikeda, alone or in combination. Claim 58, depending from claim 57, is allowable as it includes limitations not found in the cited references.

Independent Claims 64 and 66

Independent claims 64 and 66 include limitations similar to the "receiving" and forming" limitations of claim 57:

> a receive data processor operative to receive *a first message having included therein a minimum rate and a maximum rate for data transmission on a reverse traffic channel;*
>
> a controller operative to form a plurality of test packets for transmission on the reverse traffic channel, wherein *each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates, ...*

(Claim 64, emphasis added)

> means for receiving *a first message having included therein a minimum rate and a maximum rate for data transmission on a reverse traffic channel;*
>
> means for forming a plurality of test packets for transmission on the reverse traffic channel, wherein *each test packet includes a sequence number of a test packet last transmitted at each of a plurality of possible rates;*

(Claim 66, emphasis added)

- 39 -

As discussed above with respect to claim 59, the "sequence" limitations related to each "test packet" are not shown in Kobayashi, and the "a minimum rate and a maximum rate" are not shown by Numminen, Tiedemann, and/or Ikeda, alone or in combination, or in Kobayashi, or in any combination of these references. Thus claims 64 and 66 are not obvious in view of the combination of cited references, and claims depending from these references are also not obvious as they include limitations not shown in the cited references.

Accordingly, it is respectfully submitted that all pending claims fully comply with 35 U.S.C. § 103.

CONCLUSION

In view of the foregoing, it is respectfully submitted that all claims of the present application are in condition for allowance. Reexamination and reconsideration of all of the claims are respectfully requested and allowance of all the claims at an early date is solicited.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants believe that no fees are due in accordance with this Response beyond those included herewith. Should any fees be due, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 17-0026.

Respectfully submitted,

Date: July 21, 2008

/Kenneth K. Vu/_____
Kenneth K. Vu, Reg. No. 46,323
(858) 658-5106

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5106
Facsimile: (858) 658-2502

Attorney Docket No. 010121
Customer No. 23696